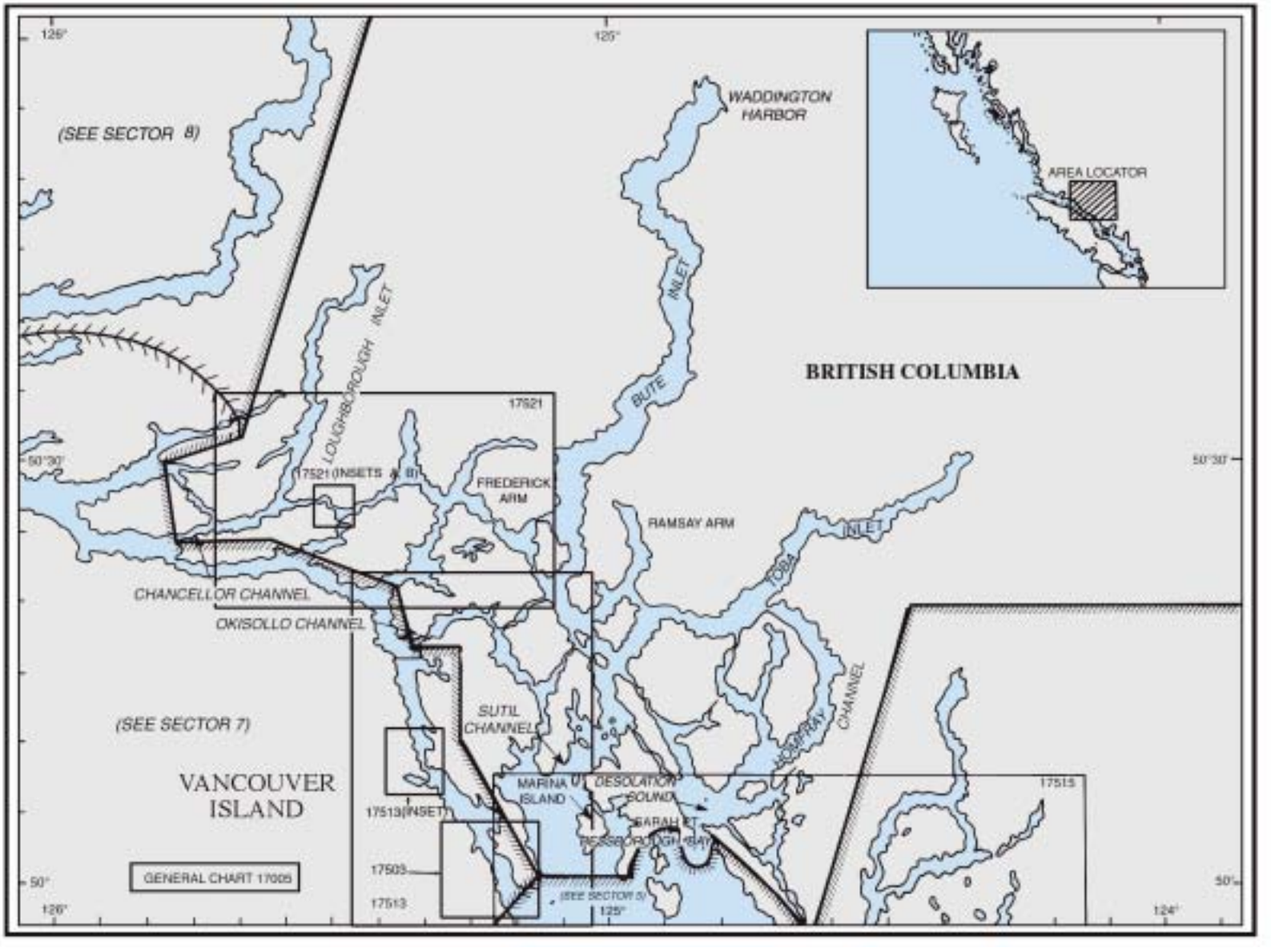
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **6** — CHART INFORMATION

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SECTOR 6

DESOLATION SOUND

Plan.—This sector describes, in order, Desolation Sound, Sutil Channel, Cordero Channel, and their respective branches. The descriptive sequence is NW from Sarah Point to Bessborough Bay.

General Remarks

6.1 Desolation Sound, Sutil Channel, Cordero Channel, and their respective branches comprise that part of the inner passage which lies E of Discovery Passage and N of the E end of Johnstone Strait. The area is a maze of navigable channels. Cordero Channel is locally regarded as the more protected route to the N.

The inner passage is a series of channels and passages used by low-powered vessels, small vessels, and tugs in order to avoid the strong tides and winds that funnel through Johnstone Strait. The route leads NW through Desolation Sound and Lewis Channel, or through Sutil Channel, Calm Channel, Yuculta Rapids, Cordero Channel, and Chancellor Channel to Johnstone Strait.

Depths nearly everywhere are great, the exception being Okisollo Channel, which has sufficient depths for any vessel that can clear Beazley Passage.

Hazards to navigation exist in Okisollo Channel and Cordero Channel. These include rapids, dangerous eddies, and swift tidal currents in the narrows. Anchorages are available within the fairways of several channels, within several of the small harbors, and in most of the inlets.

There are no ports of commercial importance. Port facilities at a number of settlements are meager. Diesel oil and gasoline are the only supplies available. Communication is maintained by local steamers and by telephone service connected with the general system.

Tides—Currents.—The flood current in Yuculta Rapids sets 185˚ at a velocity of 5 to 7 knots for nearly 1 mile. The ebb current sets 005˚ at a velocity of 4 to 6 knots. Slack at HW and slack at LW in Yuculta Rapids, 0.8 mile S of Gillard Islands Light, occur 40 minutes, respectively, before the corresponding slack waters in Seymour Narrows.

The flood current in Arran Rapids sets NE into Bute Inlet; and the ebb current sets in the reverse direction. These currents attain velocities of 7 to 9 knots. The time of slack water is identical with that of Dent Rapids; the duration is 4 minutes on the average. An overfall of several meters occurs when the currents are strong.

The tidal currents in Sutil Channel are usually weak and do not exceed velocities of 2 knots.

The tidal currents are weak in Bute Inlet to the E of Stuart Island; however, vessels are cautioned about the effect of the tidal currents in other parts of this inlet. A current, with a velocity of 1 to 2 knots, sets constantly outward from Bute Inlet during the summer months.

When the flood current is setting S through Yuculta Rapids, a countercurrent sets 300˚ close off Harbott Point at a velocity of 1 to 2 knots. This current continues N to a position located 0.5 mile NW of Harbott Point, where it meets the S flood and forces it to the W. A line of sharp rips often marks the junction of these currents. The ebb current sets 305˚ close off Harbott Point at a velocity of 1 to 2 knots. It sets 385˚ in mid-channel off this point.

The tidal currents in Homfray Channel are weak. They seldom exceed a velocity of 1.5 knots and are influenced by winds. The flood current flows in a S direction and the ebb in a N.

The tidal currents in Lewis Channel are influenced by the wind. They are weak, irregular, and seldom exceed a velocity of 2 knots.

Desolation Sound and North Branches

6.2 **Desolation Sound** (50˚05'N., 124˚49'W.) is entered from the S between Sarah Point and Mary Point, the SE extremity of Cortes Island, 1.5 miles W. It has depths that are too great for anchorage. The depths are also great in the fairways of the channels and inlets to the N of the sound.

Mary Point (50˚03'N., 124˚53'W.) is located close W of the entrance to Desolation Sound. It is 79m high, rocky, and covered with a few stunted trees.

Seaford (50˚05'N., 124˚54'W.), a settlement, is situated on the E side of Cortes Island but its wharves are in ruins.

Squirrel Cove (50˚08'N., 124˚55'W.), a landlocked basin, is a popular anchorage for small craft. Its shores are considerably indented and moderately high. Protection Island, 49m high, lies within the cove, with its S extremity located 0.4 mile NW of Boulder Point. The channel leading W of this island is about 55m wide and has a least depth of 4.6m in the fairway. The channel leading E of the island is foul.

A government wharf, with a depth of 4.9m at its head, is situated on the S side of the approach to the cove. Floats, attached to this wharf, provide 122m of berthing space.

A dangerous wreck lies in the inner part of the cove close N of Protection Island.

Boulder Point (50˚08'N., 124˚54'W.) is low and can be easily identified by the prominent large boulder standing on its S side. Two rocks, which dry 2.4m and 3.7m, lie close SE of this point; however, it can be rounded at a distance of 0.2 mile. A beacon stands close S of the point.

Lewis Channel (50˚07'N., 124˚53'W.) leads NW from Desolation Sound to Calm Channel and Deer Passage.

Junction Point, marked by a light, is located on the W side of Lewis Channel, about 1 mile NE of Boulder Point.

Cliff Peak (50˚11'N., 124˚56'W.), 459m high and conspicuous, rises on the W side of Lewis Channel. Anchorage can be taken under this peak, in a depth of 33m, about 0.1 mile offshore.

Joyce Point (50˚10'N., 124˚54'W.) is high and fringed by shoals; its NW side is fronted by three islets.

Teakerne Arm, leading N of Joyce Point, is deep with few offshore dangers.

Refuge Cove (50˚07'N., 124˚51'W.) lies on the E side of Lewis Channel, opposite Squirrel Cove. An island, the shores of which are steep-to, occupies a large part of this cove. A light is shown from the S entrance point of the cove.

Caution.—Several submarine cables, which may best be seen on the chart, extend WNW across the entrance to Desolation Sound from Sarah Point.

6.3 **Kinghorn Island** (50˚05'N., 124˚51'W.) lies about 1 mile within the entrance of Desolation Sound. The N and E sides of this island are fronted by numerous rocks and shoals.

The **Martin Islands** (50˚07'N., 124˚49'W.), joined by a drying ledge, lie 1.5 miles NNE of Kinghorn Island.

Stacey Rock (50˚04'N., 124˚49'W.) lies about 1 mile W of Sarah Point and should be given a wide clearance.

Malaspina Inlet (50˚02'N., 124˚46'W.) should not be navigated without local knowledge because of the narrowness of the channel and the many islands and dangers lying in its vicinity. The fairway channel leading through the inlet has a swept depth of 7.3m at LW. The narrowest part of the channel has a width of 82m.

Mink Island (50˚07'N., 124˚46'W.) lies 1.5 miles NE of Zephine Head, the NE entrance point of Malaspina Inlet. Curme Islands lie close off the NE end of this island.

Otter Island (50˚07'N., 124˚44'W.) is 114m high and wooded. Sky Pilot Rock, which dries 1.2m, lies about 0.2 mile N of the NE extremity of this island. The passage leading between Otter Island and the Curme Islands, about 0.5 mile SW, is navigable; however, the passage leading between the island and the mainland is very narrow and should not be used.

Waddington Channel (50˚10'N., 124˚44'W.) is entered from the N part of Desolation Sound, between Marylebone Point and Horace Head, about 1 mile ENE. The latter headland is very bold and conspicuous. The channel is about 0.1 mile wide at its narrowest part.

The **Gorges Islands** (50˚16'N., 124˚48'W.), four in number, lie on the W side of Waddington Channel. The two easternmost islands are 55m and 46m high. False Passage, lying between this group of islands and Butler Point, 0.2 mile NNE, is obstructed by rocks and kelp.

Anchorage can be taken, in depths of 22 to 26m, within Walsh Cove, at the W side of the Gorges Islands.

6.4 **Dean Point** (50˚17'N., 124˚47'W.) is located on the W side of the N entrance to Waddington Channel. This channel narrows to a width of 0.1 mile between its N entrance points. A rock, with a depth of 2.4m, lies in mid-channel, about 0.3 mile S of Dean Point. Another rock, which dries 2.1m, lies about 0.1 mile S of Dean Point. Depths of 2.7m and 4.6m are reported to lie on the E side of the channel, opposite Dean Point.

Pendrell Sound (50˚12'N., 124˚45'W.) has excessive depths and is not suitable for anchorage.

Homfray Channel (50˚09'N., 124˚43'W.) leads 12 miles from the NE part of Desolation Sound to the junction of Pryce Channel and Toba Inlet. It has a least width of 1 mile.

Forbes Bay (50˚14'N., 124˚36'W.) and **Attwood Bay** (50˚19'N., 124˚40'W.) are entered from the E side of the channel. Temporary logging camps, with private floats and booming grounds, stand in the vicinity of these bays. The depths in the channel and the two bays are too great for anchorage.

Toba Inlet (50˚21'N., 124˚44'W.) is deep and extends about 18 miles in a general NE direction from its confluence. This inlet, which is nearly 2 miles wide at the entrance, gradually narrows to a width of 1 mile at its drying head.

Channel Island (50˚19'N., 124˚45'W.), 102m high, lies in the entrance to Toba Inlet, close SW of Brettell Point. A deep channel, 0.2 mile wide, leads between the point and the island. Double Island lies close off the W side of the entrance to Toba Inlet, about 1 mile W of Channel Island. The main entrance channel leading into the inlet lies between these two islands.

Brem Bay (Salmon Bay) (50˚26'N., 124˚40'W.) lies on the NW side of Toba Inlet.

An Indian village stands on the right bank of a river, at the head of Toba Inlet. A small cemetery is situated within a bight on the NW side of the head of the inlet.

Anchorage can be taken, in a depth of 35m, with a point located on the NW shore, about 1 mile from the head, bearing 219˚ and the cemetery bearing 329˚.

Caution.—Care is necessary when anchoring at the head of Toba Inlet as the depths shoal rapidly near the edge of the drying flats.

Sutil Channel and North Branches

6.5 The Sutil Channel leads N and NNE for 17 miles along the W side of Cortes Island, from the N end of the Strait of Georgia to the junction of Calm Channel, Lewis Channel, and Deer Passage. It is entered from the S between Sutil Point and Francisco Point, 6 miles W. The depths within the fairways leading through Sutil Channel and the channels and inlets to the N, with the exception of Okisollo Channel, are great. These fairways are also clear of dangers. The depths in the fairway of Okisollo Channel are sufficiently deep for any vessel that can clear Beazley Passage. However, this channel is obstructed by several dangers including narrows, rapids, and violent eddies.

Sutil Point (50˚01'N., 124˚59'W.), the S extremity of Cortes Island, forms the common entrance point of Sutil Channel to the W and Baker Passage to the E.

Between this point and Manson Bay, 3.8 miles N, the E shore of Sutil Channel is 24 to 46m high and fringed by a sandy beach that extends up to 0.3 mile seaward in places. A lighted buoy is moored near the edge of the shoal bank extending SW of Sutil Point. A government wharf, with 22m of berthing space and a least depth of 5.2m alongside, fronts the shore of Manson Bay.

Gorge Harbor (50˚06'N., 125˚00'W.) is a landlocked anchorage lying on the E side of Sutil Channel. This harbor is available only to vessels of moderate size. The Gorge, the narrow entrance to the harbor, is about 0.5 mile long and less than 60m wide in places. The W side of this entrance passage is formed by cliffs, 46m high; the E side is bold and steep. The tidal currents set through the harbor entrance at velocities of up to 4 knots at times.

A least depth of 22m lies in the approaches to Gorge Harbor. The least depth in the fairway of the entrance channel is 11m; the anchorages have depths of 16 to 22m.

Marina Island (50˚04'N., 125˚03'W.) lies off the mouth of Gorge Harbor, close SW of Cortes Island. Marina Reef, marked by a buoy moored at its S end, extends up to about 1 mile S from the island.

The **Subtle Islands** (50˚07'N., 125˚05'W.), two in number, lie close together off the W extremity of Cortes Island. The N island is 67m high and the S island is 64m high. Both islands are wooded and joined by a gravel bank that dries. They are fringed with gravel banks, on which lie many large boulders. A gravel spit, surmounted by boulders, extends about 0.1 mile W from the W end of the N island. Centre Islet, 7m high, lies about 0.2 mile NW of the N island. This islet is bare, fringed with a rocky foreshore, and moderately steep-to. Plunger Passage, leading between Cortes Island and the Subtle Islands, is available to small craft only.

Caution.—A submarine cable, which may best be seen on the chart, extends from Marina Island to Manson Bay.

Two submarine cables, which may best be seen on the chart, extend across Sutil Channel from the W extremity of Marina Island to Quadra Island, located 2.5 miles N of Francisco Point.

6.6 Francisco Point (50˚01'N., 125˚09'W.), the SE extremity of Quadra Island, is high and cliffy; foul ground extends up to about 0.3 mile seaward from it.

Between this point and Rebecca Spit, 6 miles NNW, the W shore of Sutil Channel is flat, heavily wooded, and fringed by a beach extending up to 0.1 mile seaward in places.

Rebecca Spit (50˚06'N., 125˚12'W.), a narrow tongue of land, is 1.8 to 2.4m high and thinly wooded. A light is shown from a structure standing at the NE extremity of this spit.

Anchorage.—Anchorage can be taken throughout Drew Harbor, lying on the W side of Rebecca Spit. The best anchorage is in a depth of 15m, sand, about 0.4 mile from the head. The shores of the harbor are low and fringed by a sandy beach. As the shores are low, this anchorage is exposed to strong S and SE gales, especially during the winter. Vessels entering the harbor should round the extremity of the spit at a distance of 0.2 mile to avoid a shoal, with a depth of 5.5m, lying close off its NW side. They should then proceed up the harbor in mid-channel. The E shore of the harbor should not be approached within a distance of 0.2 mile.

Heriot Bay (50˚06'N., 125˚13'W.) is obstructed by a rock, with a depth of less than 1.8m, lying in its entrance. A government wharf, with 12m of berthing space, fronts the shore of this bay. Vessels can obtain anchorage in a depth of 18m within the bay.

Hyacinthe Point (50˚08'N., 125˚13'W.) is the common entrance point of Hyacinthe Bay, on the S side, and Open Bay, on the N. Neither of these bays can be used for anchorage.

Coulter Bay (50˚08'N., 125˚03'W.) indents the NW side of Cortes Island; most of it is occupied by a drying mudflat. Coulter Island, 59m high, lies close off the bay entrance.

Quartz Bay (50˚10'N., 125˚00'W.) has two islets lying close off its W side. A rock, 3m high, lies close S of these islets.

Viner Point (50˚08'N., 125˚08'W.), the S extremity of Read Island, is 12m high and bare.

Caution.—The shore of Cortes Island for about 2 miles to the N of Von Donop Creek (50˚11'N., 124˚59'W.) should not approached within 0.1 mile due to the existence of offshore reefs in places.

6.7 Burdwood Bay (50˚10'N., 125˚06'W.) (World Port Index No. 18360) indents the E side of Read Island. A settlement stands on the shore of the bay and several small islets lie within it. The southernmost islet lies about 0.2 mile NNE of the S entrance point. A rock, which dries 4.6m, lies close off the N end of this islet and is marked by a beacon. A shoal, with a depth of 2.3m, lies between the islet and a point located close NW. Another rock, awash, lies about 0.2 mile NNE of the N extremity of the islet.

A group of five islets, connected by drying reefs, extends NW from a position located 0.3 mile N of the southernmost islet.

A rock, with a depth of less than 1.8m, and an island, 49m high, lie about 0.3 mile WSW and 0.1 mile E, respectively, of the N entrance point of the bay. The channel leading to the W of the island is available only to small vessels with local knowledge.

Anchorage can be taken, in depths of 22 to 24m, at the S end of the bay, about 0.1 mile W of the southernmost islet. Open anchorage can be taken, in a depth of 22m, within the N part of the bay.

Hill Island (50˚10'N., 125˚04'W.), 157m high, lies in the approach to Evans Bay; an islet, 27m high, lies close off its S extremity. A shoal, with a depth of 3.7m, lies about 0.1 mile E of the islet.

The shores of Evans Bay are rocky, indented, and fronted by many islets and rocks. Frederic Point, the NE entrance point, is bold and can be approached to within 0.1 mile. An islet lies close E of this point and is connected to it by a reef that dries.

The **Penn Islands** (50˚11'N., 125˚01'W.) are rocky and covered with stunted trees. The easternmost island, which is the largest and tallest, is 140m high. A rock, which dries 1.5m, lies about 0.1 mile NE of the southwesternmost island and a rock, awash, is located close S of it. A shoal, with a depth of 3.7m, lies about midway between the southwesternmost and the northwesternmost islands. A small islet surmounts an extensive reef lying close E of the northwesternmost island. Vessels are advised not to pass between the islands in this group without local knowledge.

Whale Passage, leading between the Penn Islands and the E side of Read Island, has a navigable width of 0.3 mile. It is clear of off-lying dangers and deep.

The shore of Read Island located to the N of the Penn Islands is rocky and steep-to, except for an isolated rock lying close inshore, about 1.8 miles N of the islands.

6.8 Hoskyn Channel (50˚08'N., 125˚10'W.) extends 6 miles N between Quadra Island, on the W side, and Read Island, on the E, to the SE end of Okisollo Channel. The shores of this channel are rocky and indented. Several islets lie close offshore but the mid-channel fairway is clear and deep.

Village Bay (50˚10'N., 125˚11'W.) is exposed to the SE but temporary anchorage can be taken by moderate-sized vessels, in depths of 29 to 33m, within its center. Vessels should avoid the shoals lying close off the S entrance point of this bay.

Beazley Passage (50˚14'N., 125˚08'W.) lies at the junction of Hoskyn Channel and Okisollo Channel. It is the only safe

passage leading N out of Hoskyn Channel. The fairway channel has a minimum width of 60m and a least depth of 5.5m. This passage should only be attempted by small vessels with local knowledge at or near the time of slack water.

6.9 Okisollo Channel (50˚14'N., 125˚10'W.) leads about 6 miles NW from the N end of Hoskyn Channel to Cooper Point, the NE extremity of Quadra Island. It then leads about 6 miles WSW to Discovery Passage.

The channel, which has two rapids and several dangerous eddies, is suitable only for small vessels with local knowledge. The depths in the fairway are sufficient for any vessel that can clear Beazley Passage. Several bays indent the sides of the channel and can be used for anchorage.

Calm Channel (50˚15'N., 125˚01'W.) is deep; its shores rise abruptly to considerable heights. The tidal currents are weak within this channel, except in the NW part.

The **Rendezvous Islands** (50˚17'N., 125˚03'W.), three in number, are 149m, 81m, and 183m high from SE to NW. The passage leading between the SE island and the middle island is foul, except for a very narrow channel suitable only for small vessels with local knowledge. The passage leading between the middle island and the NW island is deep and clear.

Drew Passage, lying on the W side of Calm Channel, leads between Rendezvous Islands and the N part of Read Island. It is deep and used by local vessels.

Johnstone Bluff (50˚21'N., 125˚05'W.) is located on the E side of the junction of Calm Channel and Bute Inlet. Temporary anchorage can be taken in a depth of 27m about 0.1 mile offshore, about 0.3 mile S of this bluff.

Stuart Island (50˚23'N., 125˚07'W.), which rises in places to heights of 314m and 521m, has an undulating surface with a rocky shore. A light is shown from Harbott Point, the S extremity.

6.10 Frances Bay (50˚20'N., 125˚01'W.) is deep. A rock, with a depth of 5.5m, lies about 0.1 mile off the N shore of this bay, 0.7 mile from the head. Small vessels can obtain anchorage near the head.

Ramsay Arm (50˚21'N., 124˚59'W.) indents the mainland for 7 miles and is hemmed in by mountains on both sides. It is very deep and clear of off-lying dangers.

Bute Inlet (50˚26'N., 125˚05'W.), which varies from 1 to 2 miles in width, extends about 40 miles in a general NNE direction. Mountains rise abruptly and almost precipitously from its shores. The summits of these mountains are usually covered with snow throughout the year. The inlet, with the exception of the anchorage at the head, is very deep. The water is nearly fresh and milky white in color for some distance from the head.

Orford Bay (50˚36'N., 124˚52'W.) lies on the E side of Bute Inlet. It is deep and a drying flat occupies the head. A ruined pier fronts the S side of this bay and anchorage can be taken by small vessels close off it. A rocky ledge, which dries, extends about 0.1 mile into the channel from a point located on the E shore of the inlet, about 1.8 miles N of the N entrance point of the bay.

Waddington Harbor (50˚55'N., 124˚50'W.) lies at the head of Bute Inlet. This so-called harbor is surrounded by precipitous rocky mountains covered with stunted pines. The shores of the harbor are fringed in places, especially off the mouths of the rivers, with shoals and drying flats which are reported to be subject to change. The current flowing out of the Homathko River, at the head of the harbor, attains a velocity of 5 knots in August.

Anchorage.—Anchorage can be taken close to the edges of the drying flats. The best berths lie in a depth of 27m, with the S entrance point of the Southgate River bearing 167˚ and distant 1.5 miles, or in a depth of 12m, with the same point bearing 160˚ and distant 2 miles. These anchorages are exposed to strong SW winds that render them unsafe. Care should taken as the bottom shoals very rapidly in the vicinity of these berths.

Cordero Channel and the North, South, and West Branches

6.11 Cordero Channel (50˚24'N., 125˚10'W.) is formed by Sonora Island and the Thurlow Islands, on the S side, and by the mainland, on the N side. The channels and inlets leading from Cordero Channel include Frederick Arm and Phillips Arm, on the N side, and Nodales Channel and Mayne Passage, on the S side. The shores of Cordero Channel are rocky and mountainous in most places. The channel is deep, encumbered with islands, and is not without dangers.

Yuculta Rapids (50˚23'N., 125˚09'W.) is a passage leading from Calm Channel to Cordero Channel. It has a least depth of 35m in the fairway channel. Tidal currents here may reach as much as 7 knots.

Kellsey Point (50˚22'N., 125˚08'W.) is located on the E side of the junction of Calm Channel and Yuculta Rapids. Whirlpool Point is located on the E side of the N end of Yuculta Rapids, about 1 mile N of Kellsey Point. An islet, 3m high, lies on the W side of the N end of Yuculta Rapids, about 0.3 mile W of Whirlpool Point. Sea Lion Rock, which dries 1.8m, lies close N of the E extremity of this islet.

Arran Rapids (50˚25'N., 125˚08'W.) are little used and should not be attempted without local knowledge. Tidal currents here may reach as much as 14 knots.

Big Bay (50˚24'N., 125˚08'W.) indents the W side of Stuart Island. A rock, with a depth of 4m, lies in the middle of this bay and is marked by kelp. Due to the strength of the tidal eddies, the bay is not suitable for anchorage.

The **Gillard Islands** (50˚23'N., 124˚10'W.) front the entrance to Big Bay. The northernmost and largest island is 98m high. This island lies with its NE extremity located about 0.4 mile NNW of Sea Lion Rock. A light is shown from a structure standing on its NE extremity. The other two smaller islands of the group lie between Sea Lion Rock and the SE side of the largest island.

Jimmy Judd Island (50˚24'N., 125˚09'W.), 70m high, and the Gillard Islands divide Cordero Channel into three passages.

Gillard Passage (50˚24'N., 125˚09'W.) leads between the northernmost of the Gillard Islands and Jimmy Judd Island. It is over 0.1 mile wide and has a depth of 33m in the fairway. This passage is clear of dangers but care is necessary to avoid Jimmy Judd Reef, which dries 1.2m and fronts the W extremity of Jimmy Judd Island.

Innes Passage (50˚23'N., 125˚10'W.) leads S of the northernmost of the Gillard Islands. It is less than 90m wide and has

a least depth of 8.2m. This passage should only be used by small vessels with local knowledge.

Barber Passage (50˚24'N., 125˚09'W.) leads between Jimmy Judd Island and Stuart Island. It is over 0.2 mile wide and has a least depth of 15.5m in the fairway. This passage is clear of dangers with the exception of a rock, which dries 1.5m and fronts the W shore of Stuart Island.

Tides—Currents.—The flood current in Gillard Passage sets 095˚ at a velocity of 6 to 8 knots, but may reach as much as 13 knots. The flood current in Barber Passage sets 155˚ at a velocity of 6 to 8 knots, but may reach as much as 13 knots. A wide area of confused swirls and rips occurs at the confluence of these currents, to the E of Gillard Islands Light. The flood current sets 070˚ at a velocity of 3 to 4 knots across the W entrance of Gillard Passage.

The ebb currents are straighter and less turbulent than those of the flood. The areas of turbulence shift on the ebb from S of Jimmy Judd Island and the Gillard Islands to the N of them. The ebb current in Barber Passage sets 340˚ at a velocity of 8 to 10 knots. Part of the ebb current turns sharply into Gillard Passage, where it sets 290˚ at a velocity of 5 to 6 knots. Vessels entering Gillard Passage from the S, on the ebb, will usually encounter a strong current setting E within the area lying E of Gillard Islands Light.

6.12 The **Dent Islands** (50˚24'N., 125˚12'W.) are connected to the NE side of Cordero Channel by drying ledges. Dent Island, the easternmost and largest of the group, is 91m high. Mermaid Bay, which indents the S side of this island, is used as an anchorage and mooring ground for tugs towing log booms. Engels Rock, with a depth of 3.7m, lies about 0.1 mile ESE of the E entrance point of the bay.

Little Dent Island, 58m high, lies 0.3 mile W of Dent Island; a light is shown from its W extremity. A shoal, with a depth of 6.4m, lies about 0.5 mile NW of the light and about 0.1 mile off the SW side of Cordero Channel.

Dent Rapids is a stretch of turbulent water which leads between Dent Islands and the SW side of Cordero Channel. This stretch is 0.2 mile wide at its narrowest part and has depths over 90m. The rapids are frequently used by tugs towing rafts of timber.

Tugboat Passage, which leads between Dent Island and Little Dent Island, is not recommended. However, it is frequently used by tugs with local knowledge.

Tides—Currents.—The flood current in Dent Rapids sets 190˚ at a velocity of 7 to 9 knots. It impinges sharply on the SW shore and causes violent swirls and eddies. The flood current in Tugboat Passage sets 180˚ at a velocity of 6 to 8 knots.

The ebb currents are straighter and less turbulent than those of the flood. The areas of turbulence shift on the ebb from S of Dent Islands to the N of them. The ebb current in Dent Rapids sets 330˚ at a velocity of 6 to 8 knots. This current continues at strength for 0.5 mile along the SW shore and rips of considerable extent appear in the area. The ebb current in Tugboat Passage sets 015˚ at a velocity of 5 to 7 knots.

Slack at HW and slack at LW in Dent Rapids, abreast of Little Dent Island, occur 1 hour 10 minutes and 1 hour 20 minutes, respectively, before the corresponding slack water in Seymour Narrows.

Caution.—Navigation of Yuculta Rapids, Gillard Passage, Barber Passage, and Dent Rapids should not be attempted, other than at or near slack water, because of the strength of the tidal currents.

Vessels, especially small craft, are strongly advised not to attempt the passage of Yuculta Rapids on the flood during spring tides due to the strong rips and whirlpools prevalent in this area.

In Barber Passage, the ebb velocity does not alter with the daily variation in the range of the tide, but only with the variation between spring and neap tides. Therefore, during spring tide periods, the ebb attains a velocity of 10 knots, twice a day.

Vessels with local knowledge usually start through with the last 15 minutes of the run. It is reported that vessels attempting to navigate the rapids during the full run have been lost or damaged. Accuracy in ascertaining slack water is recommended as the period is short, usually not more than 5 minutes, and the current reverses rapidly.

Vessels towing logs frequently leave Mermaid Bay near the last of the ebb to proceed through Gillard Passage at or near the beginning of the flood. Vessels bound N should make passage through Yuculta Rapids and Barber Passage on the last of the ebb in order to avoid meeting the above-mentioned tugs with tows in Gillard Passage. Tugs with booms may also be encountered at Dent Rapids on the turn of the flood.

6.13 **Horn Point** (Henry Point) (50˚26'N., 125˚14'W.) is located on the NE side of Cordero Channel. Secord Rock, which dries 0.6m, lies about 0.2 mile NNW of this point.

Denham Islet (50˚27'N., 125˚16'W.), 58m high, lies 0.3 mile off the SW side of Cordero Channel. Denham Rock, with a depth of 2.4m, lies about 0.3 mile SE of the islet and is marked by kelp. The tidal currents in the vicinity of this islet at times attain a velocity of 4 knots.

Gomer Island (50˚28'N., 125˚16'W.), 49m high, is wooded and joined to the shore by a drying spit.

Channe Passage (50˚27'N., 125˚20'W.) leads SE of Channe Island. It is suitable only for small craft with local knowledge due to the foul ground extending from the NE shore of East Thurlow Island and Channe Island.

Shoal Bay (50˚27'N., 125˚22'W.) indents the N end of East Thurlow Island and partially dries.

Thurlow (50˚27'N., 125˚22'W.), a settlement, stands at the head of Shoal Bay and is fronted by a small pier.

Bickley Bay (50˚27'N., 125˚24'W.), lying 1 mile SW of Godwin Point, is one of the few anchorages in Cordero Channel. This bay indents the NW side of East Thurlow Island. Peel Rocks, up to 0.3m high, and several rocks, which dry 0.6 to 4m, lie on the SW side of the entrance to the bay. A rock, with a least depth of 4.9m, lies about 0.1 mile SE of Peel Rocks. Sheltered anchorage can be taken, in a depth of 27m, about 0.3 mile from the head of the bay.

6.14 **Greene Point Rapids** (50˚26'N., 125˚30'W.) are dangerous; in their vicinity the fairway of Cordero Channel is less than 0.2 mile wide. In the rapids, the currents attain velocities of 4 to 7 knots. The flood current sets 145˚. Slack at HW and slack at LW occur 1 hour and 35 minutes and 1 hour

and 25 minutes, respectively, before the corresponding slack water in Seymour Narrows.

Lyall Island (50˚27'N., 125˚36'W.) lies in the W entrance to Cordero Channel and a light is shown from its SW extremity. A rock, which dries 1.2m, lies on a shoal spit extending about 0.1 mile S from the island. A rock, with a depth of less than 1.8m, lies in the vicinity of a detached shoal, with a depth of 5.5m, located close NE of the island.

Frederick Arm (50˚28'N., 125˚17'W.) extends 3 miles NNE from the N side of Cordero Channel. This arm is deep and shoals gradually towards its head. A river, with an extensive sheet of water to its NE, enters the head of the arm from Estero Basin and its mouth is fronted by flats.

Anchorage can be taken, in depths of 18 to 29m, off the flats at the head of the arm. This anchorage, although exposed to the S, appears to be better than those in other inlets as the edge of the flats is not steep-to.

Nodales Channel (50˚24'N., 125˚20'W.) has a least width of 0.8 mile and is deep throughout. The tidal currents in this channel attain a velocity of 3 knots at times. The flood current sets N.

Hemming Bay (50˚23'N., 125˚23'W.) indents the W side of Nodales Channel and Jackson Point is located on the N side of its entrance. Lee Islands, two in number, lie 0.5 mile S of the point. A rock, with a depth of less than 1.8m, lies between the point and the islands. The depths in the bay appear to be very irregular. Menace Rock, with a depth of less than 1.8m, lies nearly in the middle of the bay. This rock is located about 0.5 mile NW of the S extremity of the Lee Islands and is not marked by kelp. A shoal, with a depth of 7.8m, lies close SE of the rock. Pinhorn Islet lies on the SW side of the bay, about 0.8 mile NW of the S extremity of the Lee Islands. Shoals extend from the SW side of the head of the bay and leave a narrow channel on the NE side.

6.15 Thurston Bay (50˚22'N., 125˚19'W.) indents the E side of Nodales Channel and is entered between Davis Point and Edward Point, 1 mile S. Block Island, with a below-water rock lying about 0.1 mile SW of it, is located in the N part of the bay close SE of Davis Point. A rock, 7m high, lies on a shoal in the S part of the bay, about 0.3 mile S of this island. Two drying rocks lie close N of the latter rock.

Small vessels can obtain anchorage, in a depth of 16.5m, close NE of Block Island.

Hardinge Island (50˚21'N., 125˚21'W.), 84m high, lies on the E side of Nodales Channel. Burgess Passage, about 0.5 mile wide, and Young Passage, about 0.3 mile wide, lead NE and S, respectively, of this island. Both of these passages have ample depths. A rock, which dries 0.9m, lies on the S side of Young Passage, about 0.3 mile WSW of the S extremity of the island.

Large vessels can obtain good anchorage, in a depth of 27m, in Young Passage. The best berth lies near mid-channel, about 0.2 mile SE of the S extremity of Hardinge Island.

Cameleon Harbor (50˚20'N., 125˚19'W.) is entered about 1.3 miles SE of Hardinge Island and affords sheltered anchorage. Bruce Point, the S extremity of a small peninsula, is located 1 mile SSE of Edward Point and forms the N entrance point of the harbor. Maycock Rock, with a depth of less than 1.8m, lies about 300m off the S shore of the approach, 0.6 mile WNW of Bruce Point. Entry Ledge, marked by kelp, extends up to about 0.1 mile seaward from the S shore of the approach, 0.3 mile W of Bruce Point. A rock, which dries 4.3m, lies on this ledge. Douglas Rock, which dries 1.5m, lies close SW of Bruce Point.

Tully Island, 6m high, lies in the N part of the harbor, 0.3 mile NNE of Bruce Point. Crook Rock lies close to the SW side of the harbor, about 0.8 mile SE of Bruce Point.

Anchorage can be taken, in a depth of 18m, about 0.2 mile from the head of the harbor. This berth, which lies close N of Crook Rock, is sheltered from all winds. Small vessels can obtain anchorage about 0.2 mile SE of Tully Island.

Caution.—Vessels entering Cameleon Harbor should keep outside of the kelp. Care is necessary as the depths shoal abruptly near the head of the harbor.

6.16 Phillips Arm (50˚29'N., 125˚22'W.) indents the N side of Cordero Channel. This arm extends about 5 miles N and then shoals suddenly to a drying flat about 1 mile from its head.

Mayne Passage (50˚24'N., 125˚30'W.), known locally as Blind Channel, leads S and WSW from Cordero Channel to Johnstone Strait. This passage is clear of dangers, with the exception of a shoal patch, with a depth of 9.1m, lying about 0.2 mile NW of the S entrance point of **Charles Bay** (50˚25'N., 125˚29'W.), and a rock, with a depth of less than 1.8m, lying about 0.8 mile S of the settlement known as Blind Channel. Anchorage is available near the N and S ends of the passage.

Shell Point (50˚25'N., 125˚30'W.) is located on the E side of the N entrance to Mayne Passage. Edsall Islets lie on a shoal spit projecting from the W side of the N entrance to the passage.

The current in Mayne Passage attains a rate of 5 knots. Slack at HW and slack at LW occur 1 hour and 10 minutes and 1 hour and 5 minutes, respectively, before the corresponding slack water in Seymour Narrows. The duration of the slack is about 8 minutes.

Anchorage can be taken, in depths of 16 to 27m, within Mayne Passage, off the S entrance point of Charles Bay. However, this anchorage is inadvisable since strong tidal currents, tide rips, and eddies may occur.

Blind Channel (50˚25'N., 125˚30'W.), a settlement, stands on the S shore of a small bay that indents the W side of Mayne Passage. It is fronted by a public wharf, 37m long.

Mayne Point (50˚23'N., 125˚33'W.) is located on the S side of Mayne Passage. Anchorage can be taken, in a depth of 37m, within the passage, about 0.4 mile NW of this point. The berth lies about midway between the point and Butterfly Bay on the opposite side of the passage.

6.17 Loughborough Inlet (50˚27'N., 125˚36'W.) extends about 17 miles NNE from its junction with Cordero Channel and Chancellor Channel. This inlet is nearly skirted by precipitous mountains that rise abruptly from its shores. Like the other inlets, it is deep with few anchorages. The tidal currents in the inlet seldom exceed a rate of 2 knots.

Beaver Inlet (50˚30'N., 125˚35'W.) indents the W side of Loughborough Inlet. The Goat Islets, three in number, lie on the NW side of the inlet, about 0.5 mile within the entrance. These islets are connected to the NW shore by a drying flat.

Dickson Point and Barry Point are located on the NW side of the inlet, WSW of Goat Islets. Hales Point, with Edith Cove lying on its SW side, and Margaret Point are located on the SE side of the inlet, SW of Goat Islets.

Anchorage can be taken, in a depth of 12m, near the head of Beaver Inlet, or in a depth of 27m in mid-channel, SW of Goat Islets.

Towry Head (50˚40'N., 125˚31'W.) is located on the E side of Loughborough Inlet. This headland, which is conspicuous, has cliffs on its S side.

Caution.—The area fronting the settlement of Blind Channel is used as a water aerodrome.

6.18 **Frazer Bay** (50˚43'N., 125˚28'W.), lying on the W side, and McBride Bay, lying on the E side, form the head of Loughborough Inlet. Heard Point, fronted by drying reefs, is located near the head of McBride Bay; a shoal patch, with a depth of 3.7m, lies close W of it.

Anchorage can be taken, in depth of 37m, within McBride Bay, about 0.2 mile S of Heard Point. The depths in Frazer Bay are too deep for anchoring, except very close inshore.

Wellbore Channel (50˚26'N., 125˚44'W.) separates Hardwicke Island from the mainland and has ample depths. This channel presents no difficulties to navigation, provided a mid-channel course is maintained.

Bukely Island (50˚26'N., 125˚44'W.) lies almost in the middle of the SE entrance to Wellbore Channel. The fairway passing E of this island is deep and free of dangers.

Carterer Point (50˚27'N., 125˚46'W.) is located on the SW side of Wellbore Channel. It is fringed by several islets and rocks that reduce the width of the channel to about 0.2 mile. An islet, 19m high, lies close N of the point and a light is shown from its E side.

Whirlpool Rapids, an area of narrows, lies abreast Carterer Point. The tidal currents in the rapids have an average maximum velocity of 7 knots and, at times, attain a velocity of 8.8 knots. The flood current sets 185˚. Slack at HW and slack at LW occur 1 hour and 40 minutes and 1 hour and 50 minutes, respectively, before the corresponding slack water in Seymour Narrows. The duration of slack is about 6 minutes.

6.19 The **Midgham Islets** (50˚28'N., 125˚46'W.), up to 18m high, lie in the approach to Forward Harbor. A detached rock, with a depth of less than 1.8m, lies about 0.1 mile S of the larger islet. Two detached shoal patches, with depths of less than 11m, lie close together, within 0.2 mile SW of the largest islet.

Forward Harbor (50˚28'N., 125˚45'W.), an inlet, indents the NE side of Wellbore Channel. Except near the entrance, it is covered with ice during the winter. The entrance channel, which is 0.5 mile long and 0.1 mile wide, has a least depth of 14.6m. It is generally clear of dangers and can be safely navigated by vessels of moderate size. The harbor widens within the entrance and has general depths of 22 to 27m. The shores are steep-to, except for the head, which dries. Robson Point is located at the inner end of the entrance channel, on the N side of the harbor. Anchorage can be taken almost anywhere within the harbor. A good berth lies in a depth of 24m, about 0.3 mile NE of Robson Point.

Caution.—It is reported that the entire S side of Forward Harbor is used as a log booming ground.

It is reported that marine farms may exist within the inlets, bays, and coves in this area, close off the shores.